

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

**In the Matter of**

**Facilitaing the Provision of Spectrum-Based  
Services to Rural Areas and Promoting  
Opportunities for Rural Telephone Companies  
To Provide Spectrum-Based Services**

**WT Docket No. 02-381**

**2000 Biennial Regulatory Review  
Spectrum Aggregation Limits  
For Commercial Mobile Radio Services**

**WT Docket No. 01-14**

**Increasing Flexibility To Promote Access to and  
The Efficient and Intensive Use of Spectrum and  
The Widespread Deployment of Wireless Services,  
And To Facilitate Capital Formation**

**WT Docket No. 03-202**

**Reply Comments of the Industrial Telecommunications Association, Inc.**

The Industrial Telecommunications Association, Inc. (ITA) hereby respectfully submits its reply comments in response to the Commission's *Notice of Proposed Rulemaking* (NPRM) in the above-referenced matter.<sup>1</sup> The NPRM seeks comment on a variety of spectrum policy initiatives that will promote the deployment of spectrum-based services in rural areas, while also seeking comment on modifying or deleting current regulations that may be acting as barriers to widespread deployment of spectrum-based services.<sup>2</sup> As discussed in more detail below a "one-

---

<sup>1</sup> See Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services, 2000 Biennial Regulatory Review Spectrum Aggregation Limits For Commercial Mobile Radio Services, Increasing Flexibility to Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and To Facilitate Capital Formation, *Notice of Proposed Rulemaking*, WT Docket No.02-381, (rel. Oct. 6, 2003) (NPRM).

<sup>2</sup> NPRM at ¶ 9.

size-fits-all” regulatory approach may not be the best method to facilitate access to spectrum-based services for a variety of radio services across a vast array of spectral and geographic areas. ITA believes that the use of spectrum audits, “white space” databases and enforcement of operating authorizations would result in more access to spectrum-based services in rural areas, given sufficient Commission resources and funds. Furthermore, ITA urges the Commission to define and retain the specific rights of incumbents and examine the possible side affects from authorizing infrastructure sharing through the adoption of new regulatory policies. ITA also stands willing to assist rural licensees by facilitating access to capital and finance information between the PLMR community and the Rural Utilities Services (RUS).

### **I. Statement of Interest**

ITA is a Commission-certified frequency advisory committee coordinating in excess of 13,000 applications per year on behalf of applicants seeking Commission authority to operate on a wide-variety of frequency assignments allocated between 30-900 MHz.

ITA enjoys the support of a membership including more than 2,100 licensed two-way land mobile radio communications users, private mobile radio service (PMRS) oriented radio dealer organizations, and the following trade associations:

Alliance of Motion Picture and Television Producers  
Aeronautical Radio, Inc.  
National Propane Gas Association

In addition, ITA is affiliated with the following independent market councils: the Council of Independent Communications Suppliers (CICS), the Taxicab & Livery Communications Council (TLCC), the Telephone Maintenance Frequency Advisory Committee (TELFAC), and USMSS, Inc.

ITA's extensive involvement with the private land mobile industry expands into many services including: application preparation for public safety and first responders; coordination and engineering services for industrial/business users, commercial licensees under Part 90 of the Commission's rules, and PMRS radio dealers; protection of petroleum service users through a contractual agreement with the American Petroleum Institute; an industry liaison for equipment manufacturers and end users, as well as band managers and end users; the Commission's first line of post-licensing, interference resolution; and various other services.

## **II. Background**

On December 20, 2002, the Commission released a *Notice of Inquiry* (NOI), requesting comments on the Commission's policies of accessing and facilitating the growth of spectrum-based services in rural areas.<sup>3</sup> On October 6, 2003, the Commission released the instant NPRM, seeking additional comments on how the Commission could further promote the growth of spectrum-based services in rural areas of the country.<sup>4</sup>

## **III. Discussion**

ITA applauds the Commission's effort to increase access to spectrum-based services in rural areas. With a membership base that includes many entities in rural areas, this proceeding could prove beneficial to ITA members with limited access to spectrum-based services. ITA's comments to follow will explain why we believe regulations must be sensitive to the radio service in question, as well as aware of the geographic area and spectral environment, to effectively promote rural access to spectrum-based services and protect incumbents from harmful interference.

---

<sup>3</sup> See Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies To Provide Spectrum-Based Services, *Notice of Inquiry*, WT Docket No. 02-381, (rel. Dec 20, 2002).

<sup>4</sup> NPRM.

#### **A. “One-Size-Fits-All” Regulatory Structures Will Not Effectuate Access in All Rural Areas**

The Commission seeks comment on which current definition of “rural,” or which combination of definitions of “rural,” would be most appropriate for mandating a uniform definition of “rural area,” if such a uniform definition could be used.<sup>5</sup> The different definitions of “rural” currently being used by the Commission can vary considerably from one definition to another, as do the use contexts to which they are applied. The Commission has used a combination of three definitions of “rural” when analyzing competition among Commercial Mobile Radio Services (CMRS) providers, those definitions include: “counties with a population density below 100 persons per square mile;”<sup>6</sup> Rural Service Area (RSA), which is defined as any area outside of a Metropolitan Service Area (MSA); and non-nodal counties within an Economic Area, defined as areas that do not have a metropolitan or economic center of activity.<sup>7</sup> Another definition of rural includes “a place not located within an MSA and has a population of less than 20,000 (based on the most current Census data).”<sup>8</sup> This definition is used for directing the broadband access financial assistance program. The Commission also notes in the NPRM that “rural” has many other possible definitions that could be used alone or in conjunction with another definition for this proceeding.<sup>9</sup>

---

<sup>5</sup> NPRM at ¶ 10.

<sup>6</sup> See Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, 8<sup>th</sup> *Annual CMRS Competition Report*, WT Docket No. 02-379, (rel. July 14, 2003) at ¶ 114, (8<sup>th</sup> Report).

<sup>7</sup> See 8<sup>th</sup> Report at 14836 ¶ 112.

<sup>8</sup> 47 C.F.R. § 1738.2.

<sup>9</sup> NPRM at ¶ 12. For example, “rural” has been defined within the context of universal service support; it has been defined by the Economic Research Service of the USDA and U.S. Census Bureau; it has also been defined as any census tract that is not within ten miles of any incorporated or census-designated place containing more than 2,500 people, and is not within a county or county equivalent which has an overall population density of more than 500 persons per square mile of land.

The Commission is seeking comment on eight separate definitions of the term “rural,” all of which are currently in use in some form or another. ITA understands that the purpose of simplicity promotes a single definition of “rural,” but more importantly, recognizes that a single definition will not suit all situations. As the Commission notes, the terrain and physical surroundings of operations will have an effect on a licensee’s signal,<sup>10</sup> and in turn, spectrum access opportunities and the ability to provide spectrum-based services in rural areas will differ. Such physical impediments to access and service need to be considered when crafting regulations in different “rural” environments. For example, Oklahoma may offer sufficient access from land mobile providers many miles away who have high towers and high power over large swaths of geography, while access in rural Wyoming may be much more difficult to obtain in the valleys of the Rocky Mountains. Moreover, given that the Commission has already concluded that a single definition of “rural” has been insufficient in its current regulatory situations, ITA suggests that a single definition not be adopted here as well.

Similarly, many construction benchmarks are employed by the Commission in determining whether spectrum is being used as anticipated by the Commission. Site-specific PLMR licenses operating on shared spectrum are required to construct and operate within one year.<sup>11</sup> Others may be regulated under a “keep what you use” standard,<sup>12</sup> a “complete forfeiture” standard,<sup>13</sup> a “substantial service” test,<sup>14</sup> or overlaid by another licensee awaiting spectrum for use.<sup>15</sup>

---

<sup>10</sup> NPRM at ¶ 52.

<sup>11</sup> 47 C.F.R. § 90.155.

<sup>12</sup> 47 C.F.R. § 22.947 and 47 C.F.R. § 22.949.

<sup>13</sup> 47 C.F.R. § 24.203.

<sup>14</sup> NPRM at ¶ 32.

<sup>15</sup> NPRM at ¶ 17.

The Commission, thus, has recognized the distinct differences between PLMR services, cellular and PCS services, broadcast services, etc., that may require different construction requirements. A population based requirement, for example, may well suit a cellular entity, but would fail a PLMR licensee, as a large population would not be the target customer for PLMR radio operations that seek to provide service to America's business and industrial sectors. Drilling down further, even spectrum bands within the same radio service could produce different access opportunities. Mandating a single definition of "rural" across all spectrum bands and services would place a cap on the flexibility offered to wireless providers in "rural" areas. Coupled with different geographic areas, services with vastly different targeted operations should not be held to a "one-size-fits-all" construction standard.

Moreover, the release of the Commission's Secondary Markets *Report and Order*, should facilitate access and spectrum use in rural areas, as licensees and spectrum-seekers enjoy the benefits of spectrum leases that can be tailored to meet the specific requirements of both parties.<sup>16</sup> These secondary market transactions may also provide licensees with additional assistance in meeting their respective construction benchmarks, in an economically efficient manner, that should be considered when crafting construction requirement obligations. In short, promoting access to spectrum-based services will be a complex undertaking, involving a variety of radio services, geographic areas, spectrum bands, and possibly secondary markets. The Commission must remain cognizant of the needs of these different groups to ultimately promote access in rural areas.

#### **B. Spectrum Audits, "White Space" Databases and Commission Enforcement of Authorizations Will Effectuate More Access in Rural Areas**

---

<sup>16</sup> See generally Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Further Notice of Proposed Rulemaking*, WT Docket No. 00-230, (rel. Oct. 6, 2003).

License audits of the construction and operational status of private land mobile licensees have been successful at increasing the accuracy of the Universal Licensing System, which will lead to additional spectrum access and more efficient use of spectrum in all areas of the country. The Wireless Telecommunication's Bureau (WTB) audit of stations operating below 512 MHz, now in the second stage, experienced a response rate of 93% to date, with many licenses returning their unused spectrum to the Commission.<sup>17</sup> The license audit of the operational status of site-specific licenses operating in the 220-222 MHz band, which has been completed, was also successful with a response rate of 80%.<sup>18</sup> In this audit, the Commission reclaimed 32% of the licenses audited in the 220-222 MHz band.<sup>19</sup> ITA supports the use of additional construction and operational status audits. In addition to making more spectrum available in a given area, these audits help to ensure that the information provided in the ULS is accurate so that frequency coordinators may provide private land mobile applicants with the best possible frequency selections. ITA believes that the ULS has also made implementing these required audit responses much smoother and could be used as a medium for responses in future license audits.

Another Commission tool that could facilitate spectrum access lies in the concept of a "white space" database. For many PLMR entities, large geographic areas are not required for daily operation, as they may only need to cover an operating environment of a couple miles. ITA believes that if licensees were able to access a database of "white space," those portions of spectrum now lying fallow may be licensed to users that only need small, excess geographic

---

<sup>17</sup> See Wireless Telecommunications Bureau Announces Commencement of an Audit of the Construction and Operational Status of Private Land Mobile Radio Stations, *Public Notice*, DA 01-1575, (rel. Aug. 1, 2001). See also Private Land Mobile Radio Service (PLMRS) Audit, Federal Communications Commission Website, <http://wireless.fcc.gov/licensing/audits/plmrs/index.html> (Jan 21, 2004).

<sup>18</sup> See Wireless Telecommunications Bureau Announces an Audit of the Operational Status of Certain 220-222 MHz Band Licenses, *Public Notice*, DA 03-1089, (rel. April 9, 2003).

<sup>19</sup> See Wireless Telecommunications Bureau Announces Conclusion of 220 MHz Spectrum Audit,

areas in addition to their current authorizations. ITA, however, realizes that the administrative costs associated with developing and maintaining a database of “white space” may be too high and a public/private partnership may be more appropriate for the development of such a database.

A third tool sought to promote access in the NPRM are performance notifications.<sup>20</sup> While ITA would not preclude judgment on the merits of performance notifications, we believe the same effect may best be achieved by more stringent Commission enforcement of its granted authorizations. Adequate enforcement of the Commission’s construction requirements and a licensee’s overall compliance will be most advantageous in promoting efficient spectrum-use and access. Unlike performance notifications, strict enforcement would not promote those misusing the Commission’s notification process. Nevertheless, the Commission should reach out to determine if licensees are performing within the parameters of their Commission authorizations, whether through performance notifications or more stringent enforcement rules.

**C. While Higher Power May Promote Access in Some Rural Areas, the Commission Should Not Permit Higher Power in Rural Areas At the Expense of Incumbents**

Incumbents’ rights to, and/or expectations of, interference-limited or interference-free operations cannot be lost in the effort to promote access to spectrum-based services in rural areas. As the Spectrum Policy Task Force (SPTF) notes, interference rules and obligations should

“afford spectrum users the flexibility to operate at higher power in less congested areas, which are typically rural, so long as such higher power operations do not cause interference and do not receive additional interference protection.”<sup>21</sup>

---

*Public Notice*, DA 03-3666, (rel. Nov. 18, 2003).

<sup>20</sup> NPRM at ¶ 31-46.

<sup>21</sup> See Spectrum Policy Task Force, *Report*, ET Docket No. 02-135, (rel Nov. 11, 2002) at p. 59.



ITA supports the SPTF's assessment and suggests that incumbent's rights be clearly defined before authorizing higher power operations in rural areas. Without clearly defined interference protection rules, the financial risk for investors to build a communications system, particularly in rural areas, may be too great, and instead of advancing the goal of increased access to spectrum-based services in rural areas, the converse may occur.

ITA agrees with the Commission's statement in the NPRM that an increase in the power levels for base stations on a base/mobile system may not create a significant improvement in coverage of PLMR systems, since many of these systems have two-way transmissions and an increase in base station output power would not effect how well the mobile units will perform.<sup>22</sup> However, an increase in output power at base stations could increase the risk of interference by possibly causing interference to neighboring systems. Before power levels are increased, ITA encourages the Commission to require frequency coordination or interference studies demonstrating that the increased power levels proposed will not result in increased levels of interference to incumbent systems.

#### **D. The Commission Should Be Careful in Permitting Infrastructure Sharing**

The Commission seeks comment on allowing infrastructure sharing in rural areas as a technique that would reduce infrastructure costs to individual licensees.<sup>23</sup> ITA is concerned with the long-term affects of allowing infrastructure sharing in rural areas. It has been demonstrated in the 800 MHz interference proceeding that the co-location of different cellular operators has led to devastating results for public safety and private land mobile radio systems.<sup>24</sup> Anne Arundel County, Maryland (Anne Arundel) notes that, "co-locations by various combinations of

---

<sup>22</sup> NPRM at ¶ 52-53.

<sup>23</sup> NPRM at ¶ 104.

<sup>24</sup> See Improving Public Safety Communications in the 800 MHz Band/Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, *Notice of Proposed Rulemaking*, WT Docket

these [Nextel, Cingular, and Verizon] carriers...have the unintended side effect of making interference resolution more difficult.”<sup>25</sup> The City and County of Denver, through a technical analysis of their interference problems, found that co-located cellular systems perpetuate interference to area law enforcement and fire fighters.<sup>26</sup> While ITA understands the economic benefits of infrastructure sharing, we remain hesitant to support such action at this time, until we may be assured that the interference issues being tackled in the 800 MHz band will not occur to similar licensees in rural areas.

**E. ITA Would Be Willing to Assist the Rural Utilities Service (RUS) in Reaching Out to Private Land Mobile Licensees to Facilitate Information Sharing on Capital/Financing Information**

The Commission also seeks comment on how best to assist service providers in accessing capital and financing for providing spectrum-based services in rural areas.<sup>27</sup> The Commission specifically sought comments on the U.S. Department of Agriculture’s RUS Program and requested suggestions for modifying the program to increase its effectiveness and asked which groups should be targeted.<sup>28</sup> ITA supports the Commission’s effort to increase wireless offerings to rural areas and would be willing to facilitate information sharing among the PLMR community from the RUS program or from the FCC/RUS Outreach Partnership. ITA has a diverse membership that includes many companies and individuals that reside in rural areas and remains eager to enhance the wireless services that could be offered in their areas.

---

No. 02-55, (rel. March 15, 2002).

<sup>25</sup> See Improving Public Safety Communications in the 800 MHz Band/Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, *Ex Parte on behalf of Anne Arundel County, Maryland*, WT Docket No. 02-100, (filed July 29, 2003) at p. 2.

<sup>26</sup> See generally Improving Public Safety Communications in the 800 MHz Band/Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, *Cellular Radio Interference to Denver’s 800 MHz Public Safety Network, Ex Parte Presentation*, WT Docket No. 02-55, (filed June 11, 2003).

<sup>27</sup> NPRM at ¶ 77.

<sup>28</sup> NPRM at ¶ 77-78.

#### **IV. Conclusion**

ITA supports the Commission efforts to facilitate the further deployment of spectrum-based services to rural areas, but believes that a “one-size-fits-all” regulatory approach may not produce the desired effect for all services, geographic areas or spectrum bands. However, the use of audits and “white space” databases may offer access to spectrum, currently lying fallow. As noted above, Commission enforcement of its authorizations and regulations, and clearly defined rights of incumbents will enhance access in rural areas and create incentives for future use. ITA looks forward to working with the Commission and other government entities to increase access to spectrum-based services in rural areas.

Respectfully submitted,

INDUSTRIAL TELECOMMUNICATIONS  
ASSOCIATION, INC.  
1110 N. Glebe Road, Suite 500  
Arlington, Virginia 22201  
(703) 528-5115

By: /s/ Jeremy Denton

Jeremy Denton  
Director, Government Affairs

/s/ Robin Landis

Robin Landis  
Regulatory Affairs Assistant

January 26, 2004

### **CERTIFICATE OF SERVICE**

I, Robin Landis, do hereby certify that on the 26th day of January 2004, I forwarded to the parties listed below a copy of the foregoing Reply Comments of the Industrial Telecommunications Association, Inc via hand delivery:

Bryan Tramont, Esq.  
Senior Legal Advisor  
Office of Chairman Michael K. Powell  
445 12th Street, SW, 8-B201  
Washington, DC 20554

Jennifer A. Manner, Esq.  
Senior Legal Advisor  
Office of Commissioner Kathleen Q.  
Abernathy  
445 12th Street, SW, 8-A204  
Washington, DC 20554

Barry Ohlson, Esq.  
Interim Legal Advisor  
Office of Commissioner Jonathan S.  
Adelstein  
445 12<sup>th</sup> Street, SW, 8-B115  
Washington, DC 20554

John Muleta  
Chief, Wireless Telecommunications Bureau  
445 12<sup>th</sup> Street, SW, Room 3-C252  
Washington, DC 20554

D'wana R. Terry, Esq.  
Chief, Public Safety & Critical  
Infrastructure Division  
Wireless Telecommunications Bureau  
445 12<sup>th</sup> Street, SW, Room 4-C321  
Washington, DC 20554

Aaron N. Goldberger  
Legal Advisor

Wireless Telecommunications Bureau  
445 12<sup>th</sup> Street, SW, Room 3-C310  
Washington, DC 20554

Sam Feder, Esq.  
Legal Advisor  
Office of Commissioner Kevin J. Martin  
445 12<sup>th</sup> Street, SW, 8-C302  
Washington, DC 20554

Paul Margie, Esq.  
Legal Advisor  
Office of Commissioner Michael J. Copps  
445 12<sup>th</sup> Street, SW, 8-A302  
Washington, DC 20554

Marlene H. Dortch, Esq.  
Secretary  
445 12<sup>th</sup> Street, SW, Room TW-325  
Washington, DC 20554

Catherine W. Seidel, Esq.  
Deputy Chief, Wireless  
Telecommunications Bureau  
445 12<sup>th</sup> Street, SW, Room 3-C220  
Washington, DC 20554

Herbert W. Zeiler  
Deputy Chief, Public Safety &  
Critical Infrastructure Division  
Wireless Telecommunications Bureau

445 12<sup>th</sup> Street, SW, Room 4-C343  
Washington, DC 20554

Ramona E. Melson, Esq.  
Chief of Staff, Public Safety &  
Critical Infrastructure Division  
Wireless Telecommunications Bureau  
445 12<sup>th</sup> Street, SW, Room 4-C237  
Washington, DC 20554

Michael Wilhelm  
Acting Deputy Chief, Public Safety &  
Critical Infrastructure Division  
Wireless Telecommunications Bureau  
445 12<sup>th</sup> Street, SW, Room 4-C305  
Washington, DC 20554

Qualex International  
Portals II  
445 12<sup>th</sup> Street, SW, Room CY-B402  
Washington, DC 20554

Nicole McGinnis  
Commercial Wireless Division  
Wireless Telecommunications Bureau  
445 12<sup>th</sup> Street, SW, Room 6223  
Washington, DC 20554

Douglas I. Brandon\*  
AT&T Wireless Services, Inc.  
1150 Connecticut Avenue, NW  
Suite 400  
Washington, DC 20036

Harold Mordkofsky\*  
Blooston, Mordofsky, Dickens,  
Duffy & Prendergast  
2120 L Street, NW, Suite 300  
Washington, DC 20037

Michael F. Altschul\*  
Cellular Telecommunications & Internet  
Association  
1250 Connecticut Avenue, NW, Suite 800  
Washington, DC 20036

J.R. Carbonell\*  
Cingular Wireless LLC  
5565 Genridge Connector, Suite 1700  
Atlanta, GA 30342

Steve C. Hillard\*  
Council Tree Communications, Inc.  
2919 West 17<sup>th</sup> Avenue, Suite 211  
Longmont, CO 80503

Ronald L. Ripley, Esq.\*  
Dobson Communications Corporation  
14201 Wireless Way  
Oklahoma City, OK 73134

Jack Richards\*  
Keller & Heckman LLP  
1001 G Street, NW, Suite 500 West  
Washington, DC 20001

Leah S. Stephens\*  
Brantly, Wilkerson & Bryan, PC  
405 South Hull Street  
Montgomery, Alabama 36104

L. Marie Guillory\*  
National Telecommunications  
Cooperative Association  
4121 Wilson Boulevard, 19<sup>th</sup> Floor  
Arlington, VA 22203

Helen E. Disenhaus\*  
Swidler Berlin Shereff Friedman, LLP  
3000 K Street, NW, Suite 300  
Washington, DC 20007

Christine M. Gill\*  
McDermott, Will & Emery  
600 Thirteenth Street, NW  
Washington, DC 20005-3096

George Y. Wheeler\*  
Holland & Knight LLP  
2099 Pennsylvania Avenue, NW #100  
Washington, DC 20006

Danny E. Adams\*  
Kelley Drye & Warren LLP  
8000 Towers Crescent Drive, Suite 1200  
Vienna, VA 22182

/s/ Robin Landis

Robin Landis

\*delivered via U.S. Postal Service

